



The Kamiah Supervisor's Office roof installation. Courtesy photo by SmartLam.

# Mass Timber Showcased in New Forest Supervisor's Office

The U.S. Department of Agriculture (USDA) Forest Service relied on traditional and innovative wood products in the visionary construction of a new high-efficiency building in Kamiah, Idaho, slated to open ahead of schedule later this summer. The new supervisor's office for the Nez Perce-Clearwater National Forest features the latest in cross-laminated timber (CLT) and glue-laminated timber (glulam). These innovative products are called "mass timber" and are made up of multiple individual layers of lumber that are glued together. It is the first Forest Service building to be made using CLT.

## Saving Time and Money

"Relying on mass timber meant a much faster build, and when you save time in construction, you save money. Using CLT for the roof structure was the fastest process I've ever seen installed by such a small crew. The roof was done in about three days," says Nick Diggins, an architect at Mosaic Architecture, a former Marine who is used to keeping to tight schedules.

Joel Little, an architect with the Forest Service, says the glulam columns made the framing so efficient that the walls went up in a week and the framing "took one-tenth of the time in a similar-sized project."

Diggins was also impressed by how intuitive the CLT install was, especially considering it was the team's first CLT project. Mass timber panels arrive onsite almost like a kit, strategically stacked for coordinated removal, placement, and assembly. Other factors that sped up the project included relying extensively on 3D modeling to revise designs precisely and efficiently.

## Buying Local Supports Regional Economy

The wood and decorative stone was sourced regionally. Using timber and other nontimber forest products from the region circulated funds back into the local economy. Local workers, including members of the Nez Perce Tribe, a federally recognized Tribal Nation with more than 3,500 citizens, were directly employed in construction.

## Bringing Wood Inside to Create a Healthy Indoor Environment

The 16,000-square-foot building features a healthy indoor environment for employees, with lots of open spaces and natural light. Mosaic Architecture of Helena, MT, designed the building site to blend into the landscape's natural features. The open floorplan reduces the footprint of the building while enhancing efficiency by promoting collaboration between employees.

The previous supervisor's office wasn't big enough to have all departments in one building. This inconvenienced the public, who had to drive to different buildings and towns to interact with the Forest Service. The main building was a residential-type structure with basement work areas. Poor access to daylight for workers and minimal space for collaborative workspaces and public engagement helped justify a new building design.

## Award-Winning Green Design

Embedded within the design goals is the foundational Forest Service priority of sustainable resource stewardship. Production of mass timber creates lower carbon emissions than producing other building materials, supporting the Forest Service's goals of mitigating climate change. It also stores more carbon than other building materials. Further, mass timber can be created from logs removed during forest management activities that reduce wildfire risk (e.g., tree thinning).

The completed supervisor's office is up for recognition by Green Globes, a national award for the building's sustainable features. There is also the potential to be recognized for solar technology that will cut the building's already low-energy usage in half.

The CLT provided by SmartLam and Redbuilt also meets USDA BioPreferred Program standards, a program that expands new markets for bio-based materials. Managed by the USDA, the program reduces our Nation's reliance on petroleum, increases the use of renewable resources, and contributes to reducing adverse environmental and health impacts.

## Inspiration for the Future

The success of the Kamiah site is inspiring new projects. Little is working on a predesign for the Grangeville Air Center, about 30 miles south of Kamiah. "The U.S. Forest Service's supervisor's office in Kamiah is a great model for the rest of the Forest Service," Little says.

## More Information

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## FAST FACTS

- Mass timber is made up of multiple individual layers of lumber that are glued together.
- Mass timber allows for much faster builds, which saves time and money.
- New office showcases wood as an affordable and sustainable building material with diverse applications.
- The lumber was sourced regionally to support local economic development.
- Mass timber uses less carbon in production and stores more carbon in final products than other building materials.



CLT roof panels being moved into place. Courtesy photo by SmartLam.